Center Innovation Fund: LaRC CIF

Low-Cost Small Satellite Atmospheric Rotating Solar Occultation Imager (ROI)

Completed Technology Project (2015 - 2016)

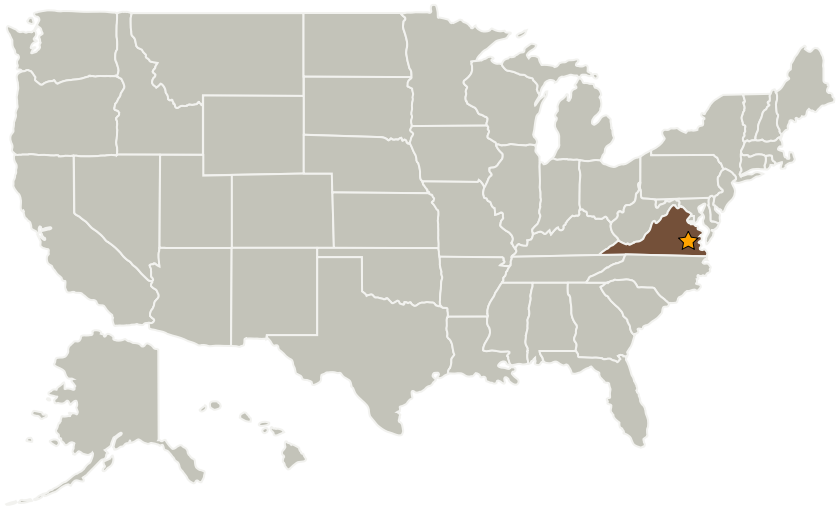
Project Introduction

Utilizing a unique, new occultation technique involving imaging, the ROI concept will meet or exceed the quality of SAGE measurements at a small fraction of the cost. The results of an Engineering Design Studio session already held here at NASA LaRC will be leveraged to construct a proof-of-concept prototype instrument for use as a demonstrator of the technique with successful ground testing.

Anticipated Benefits

The technology will be able to measure stratospheric ozone and aerosol levels, meeting or exceeding the quality of SAGE measurements at a small fraction of the cost.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Langley Research Center(LaRC)	Lead Organization	NASA Center	Hampton, Virginia

Primary U.S. Work Locations
Virginia

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Project Website:

https://www.nasa.gov/directorates/spacetech/home/index.html

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Langley Research Center (LaRC)

Responsible Program:

Center Innovation Fund: LaRC CIF

Project Management

Program Director:

Michael R Lapointe

Program Manager:

Julie A Williams-byrd

Principal Investigator:

Robert P Damadeo

Co-Investigator:

Charles A Hill

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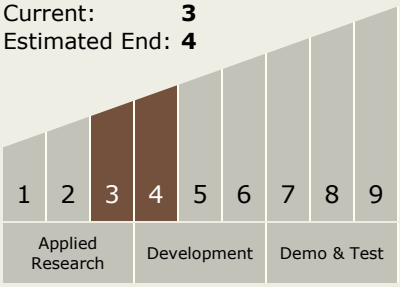
Completed Technology Project (2015 - 2016)

Technology Maturity (TRL)

Start: **3**
Current: **3**
Estimated End: **4**



Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.4 Microwave, Millimeter-, and Submillimeter-Waves